

- 5 Informal Working Group on Effective Prescribing. *Report*. London: DHSS, 1983. (Greenfield report.)
- 6 Murdoch JC. The epidemiology of prescribing in an urban general practice. *J R Coll Gen Pract* 1980;30:593-602.
- 7 Skegg DCG, Doll R, Perry J. Use of medicines in general practice. *Br Med J* 1977;ii:151-63.
- 8 Hamley JG, Brown SV, Crooks J, Knox JDE, Murdoch JC, Patterson AW. Prescribing in general practice and the provision of drug information. *J R Coll Gen Pract* 1981;31:654-60.
- 9 Sheldon MG. Self audit of prescribing habits and clinical care in general practice. *J R Coll Gen Pract* 1979;29:703-11.
- 10 Flemming DM. An epidemiological method applied to practices to measure the representativeness of their prescribing characteristics. *Br Med J* 1984;289:1425-8.
- 11 Harris CM, Jarman B, Woodman E, Whyte P, Fry JS. *Prescribing—a suitable case for treatment*. Occasional paper 24. London: Royal College of General Practitioners, 1984.
- 12 Brodie MJ, Eccles S, Harrison PI. Prescribing in general practice: pharmacological approach. *Br Med J* 1983;286:941-4.

- 13 Jolles M. Why not compile your own formulary? *J R Coll Gen Pract* 1981;31:372.
- 14 Whyte A. How we streamline our scripts. *Medical Economics* 1985;6(1):24-6.
- 15 Ryde D. Prescribing—a controversial craft? *Practitioner* 1981;225:283-5.
- 16 Hemminki E. Review of literature on the factors affecting drug prescribing. *Soc Sci Med* 1975;9:111-6.
- 17 Melville A. Job satisfaction in general practice: implications for prescribing. *Soc Sci Med* 1980;14a:495-9.
- 18 Howie JGR. Clinical judgment and antibiotic prescribing in general practice. *Br Med J* 1976;iii:1061-4.
- 19 Lennard HL, Cooperstock R. The social context and function of tranquillizer prescribing. In Mapes R, ed. *Prescribing practice and drug use*. London: Croom Helm, 1980:73-82.
- 20 Renieri A, Piperno A. Factors affecting list size of general practitioners and number of drugs prescribed: findings of a recent study. *Soc Sci Med* 1983;17:335-41.

(Accepted 25 January 1985)

Style Matters

PEARLS (personally arranged learning sessions): an alternative to presentations of free papers

P L SCHWARTZ, C J HEATH

"For our students, we have thrown the lecture into outer darkness, as an outworn remnant of an earlier pedagogic era; but for ourselves, we teachers continue to lecture to each other, almost incessantly. We dash all around the country, indeed half way around the world, winter and summer, spring and fall, leaving our appointed tasks—such as teaching students—and when we get there, what do we do? We sit down and listen to lectures, or, worse still, we stand up and give them."¹

Richards is not the only one to voice such complaints. Others have decried the poor standards of communication,^{2,4} the loss of excitement and person to person contact,⁵ and the excessive use of brief verbal presentations of contributed papers at scientific meetings.^{5,7} A few suggestions for alternatives to open paper presentations have been made recently.^{6,7} We describe a new approach that was used at a combined meeting of the Australasian and New Zealand Association for Medical Education and the Association of Australian and New Zealand University Dental School Teachers.

Background and method

During the early stages of preparation for a conference of the Australasian and New Zealand Association for Medical Education and the Association of Australian and New Zealand University Dental School Teachers that was held in Dunedin in August 1984 one of us (PLS) proposed a radical departure from standard practice to change the two afternoons ordinarily devoted to presentations of free papers or conventional workshops. Reasons for this were dissatisfaction with the passivity of the audiences at presentations of papers, the poor quality of many presentations, and the lack of

relevance of much of what was presented. Most value can be gained from conferences by identifying specific questions or problems and making contact with individuals or small groups who have ideas or experience in those areas. It was suggested that such contacts should be formalised as the main afternoon activity of the conference. The local organising committee accepted the suggestion with enthusiasm.

To emphasise that these sessions were to be opportunities for registrants to share ideas and experiences, and that each registrant could expect to get some highly relevant personal information from them, it was suggested that they be called PEARLS (PErsonally ARranged Learning Sessions).

At the time of formal postal registration each registrant was asked to list the topics he (or she) wished to learn about, to give brief details of each one he would offer, and to specify the maximum number of people he wished to work with in each session he offered.

Soon after the deadline for returns all the information on topics offered was collated and listed in the conference programme, which was circulated to all registrants two to three weeks before the conference. Each person was asked to look over the list of topics and to be prepared to choose among them on arrival at the conference.

We divided the two afternoons into nine intervals of half an hour or an hour. Nine index cards (127×76 mm) were prepared for each registrant. Each card was labelled with the registrant's name and affiliation and stamped and colour coded to correspond to one of the nine intervals.

The sessions being offered were distributed throughout the two afternoons so that there were roughly equal numbers of sessions running during each time interval, with a wide variety of topics. Portable bulletin boards (1.2×2.4 m) were used to post the details, one section of board being devoted to each time interval with a labelled space for each session being offered. Each session was headed by a card listing the experience of the session leader(s). Registrants were to attach their cards with map pins limited to the number that the session leader had specified as the maximum for his group (at most 12). For each time interval there was a pocket for "uncommitted" cards—that is, those from registrants who did not want to attend any of the sessions offered during that time or who wished to have afternoon tea or to go somewhere else. Board space (as well as rooms and other facilities) was also provided for "special

Department of Clinical Biochemistry and Dean's Department, University of Otago Medical School, Dunedin, New Zealand

P L SCHWARTZ, MD, senior lecturer

C J HEATH, MB, DPHIL, associate dean for undergraduate studies

Correspondence to: Dr P L Schwartz.

sessions." For these, registrants could ask or offer to meet individuals or small groups to discuss topics not already listed. (Photographs showing the arrangement of one of the boards can be obtained from us.)

The boards were set up at an evening registration function the night before the PEARLS began. This allowed registrants to make their choices or to change any preliminary matches that had already been made for them based on the earlier listing of topics they wanted to learn about. The composition of each group could be clearly seen from the cards that had accumulated on the board. The boards were also on display during the next morning and for the rest of the time in the area where the PEARLS were to run. Participants could change their choice of sessions up until the time of the session.

Evaluation of 67 PEARLS by participants (n=423)

| | Very much so | To some extent | Uncertain | Not really | Definitely not | No response |
|---|--------------|----------------|-----------|------------|----------------|-------------|
| Did you find the session profitable? | 169 | 193 | 33 | 21 | 2 | 5 |
| Did you learn something of use to yourself? | 115 | 213 | 52 | 32 | 2 | 9 |
| Was this session better than a typical presentation of a paper? | 128 | 171 | 79 | 20 | 4 | 21 |

Equally, if no one had signed up for a particular session by 30 minutes before its scheduled start the leader was free to withdraw the session and attend one of the others during that time.

All sessions took place in adjacent small rooms that had chairs arranged in circles and any audiovisual facilities requested by the session leader. The sessions were to run in any way that the leader and participants found the most useful, though lectures and typical presentations of papers were strongly discouraged. The leader was responsible for making each participant complete a brief evaluation form for that session and for returning the completed forms along with one of his own.

Results and discussion

From 99 final registrants, 43 offered a total of 73 sessions. Each period had eight or nine concurrent sessions. During each period it was possible for 87-102 people (including session leaders) to participate. Topics included the preparation of multiple choice questions, the use of problem based lectures, the specification of educational objectives, computer assisted instruction, problem based learning, analysis of clinical decisions, prevention of burnout, the teaching of interpersonal skills, and student counselling.

The selection boards at the registration evening function proved to be a focal point. There was a great deal of activity as registrants selected sessions and attached their cards to the boards, and a few grumbles when late registrants found some of the most sought after sessions already filled.

No session had to be cancelled for lack of participants, though some had as few as one in addition to the leader and 53 of the 73 were not filled to the specified maximums. Of the 99 registrants, 55-71 (including leaders) actually participated in the PEARLS during each time interval. Only two special sessions were requested, probably because registrants were adapting to the new format, and these were not in fact held. The sessions ran well, and most registrants seemed enthusiastic. This was reflected in their responses on the evaluation sheets.

The session leader was asked to rate how he believed the session had gone on a five item scale. Responses were received from leaders of 61 of the 73 sessions; eight were said to have gone extremely well; 43 well; nine "so so"; one poorly; and none very poorly. The participants rated the sessions just as highly (table). A total of 423 evaluation sheets were returned from 67 of the 73 sessions; this represented responses from 89% of the 478 participants (non-leaders) at the PEARLS.

One or more negative ratings—that is, below "uncertain"—were returned for 27 of the 67 sessions for which evaluation sheets were

handed in. For 20 of these 27, however, the number of positive ratings (above and not including uncertain) exceeded the negative ones by a ratio of at least 3:1. For the seven other sessions it was clear that there was dissatisfaction among a substantial proportion of those who returned rating sheets. Five of these seven nevertheless yielded more positive than negative ratings. Taken together these seven sessions accounted for 36 of the total of 81 negative ratings shown in the table.

No clear pattern of the qualities that contributed to successful or unsuccessful sessions emerged. From verbal and written comments and from our own observations we believe that the topic and presenter were at least as important as the format of the session in determining the ratings. Mini lectures and excessive use of overhead

projectors were commented on unfavourably, but group discussion and presentation sessions on different topics were highly rated.

One interesting finding was that for the 11 sessions that had three or fewer participants in addition to the leader only one negative rating was recorded (as defined above) as against 70 positive ones. We had always encouraged groups to be as small as possible, and, though the number of ratings is too small for us to be certain, this result suggests that our confidence in the success and usefulness of such small groups was not misplaced.

Overall comments

Sixty seven of the 99 registrants wrote overall comments about the PEARLS. From them we gained confirmation that the sessions were generally well received, especially the idea of small groups with active participation by all. The main refinements suggested were that: (1) many sessions should have been longer; (2) time should have been provided for moving between sessions; (3) more detailed advance information about the content and nature of each of the sessions would have been useful; and (4) in future there should probably be a mixture of types (group discussion and actual presentation or demonstration), depending on the topic and the message.

Enough enthusiasm was expressed in the written comments and verbally to suggest that the PEARLS will be a feature of subsequent meetings. We and the rest of the organising committee for the 1984 meeting were delighted with the way the scheme operated and would commend it, or something like it, to others who are considering replacing presentations of free papers or conventional workshops at a conference.

We acknowledge the financial support of the New Zealand Medical Education Trust towards the 1984 ANZAME/AANZUDST Conference.

References

- Richards DW. In: Strauss MB, ed. *Familiar medical quotations*. London: J and A Churchill, 1968:262.
- Kraft AR, Saletta JD, Moss GS, Herman CM, Tompkins RK. A critical appraisal of the effectiveness of scientific presentations. *J Surg Res* 1976;20:377-9.
- Tsakraklides VG, Tsakraklides EK, Kotsis LK, et al. The anatomy of free paper sessions. *Br Med J* 1980;281:1194-6.
- Richmond DE. Improving medical meetings. I: Educate speakers and chairmen of sessions in advance. *Br Med J* 1983;287:1201-2.
- Abelson PH. Communication between scientists. *Science* 1983;221:1011.
- Richmond DE, Mercer CJ. Improving medical meetings. III: Diversify the format of conference sessions. *Br Med J* 1983;287:1363-4.
- Sindermann CJ. *Winning the games scientists play*. New York: Plenum Press, 1982.

(Accepted 7 November 1984)